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THE **TORQUE-TUBE**

THE NEWS PUBLICATION FOR MEMBERS

OF THE 1937-1938 BUICK CLUB • FOUNDED 1980



Volume IX • Number 4



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Volume IX, Number 4

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Miscellaneous Matter



The most recent Harangue worked — at least to the fullest extent I could have hoped for, based upon past precedent. "Fullest extent" means I have so far received six or seven contributions of varying sizes, but all good. Some appear in this issue, others will likely be in the next. I am told that if a "direct mail" campaign, or survey, or whatever, brings a response from two or three percent of the recipients it is considered a success. We are not far off that standard, and although I deserve better, I will not temper my gratitude by further peevishness — not now, at any rate.

My plea for help with technical questions brought a fine volunteer effort from Mike Adler (#103). I put Mike to work on a question I was struggling with, and he responded magnificently. Mike's discourse, on taking the clutch out of one's car, with which I hope the questioner is happy, appears in the "Technical Tips" section. Several other people sent in useful, interesting, and/or entertaining matter. Thanks to all these contributors. I guess a little nagging is what it takes. I don't really like trying to make people feel guilty, but it does seem to produce results.

However much you may like reading my stuff, eventually it cannot help but become a bit tedious, and a diversity of contributors gives the publication a richness it cannot achieve by my pen alone. Besides, it's satisfying and fun to see one's own stuff in print. I was pleased with the literary quality and style of the recent contributions; most required only a minimum of editorial clean-up. Some people of course have a greater facility for the written word than others, and society as a whole has become more and more focused upon oral communication; thus many people are just out of practice when it comes to putting words on paper. Like playing the piano or speaking German, however, it does tend to "come back" once one starts in.

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FOUNDED BY DAVE LEWIS



COVER CARS

FRONT COVER: The familiar but nonetheless ever-appealing nose of a '38 Buick. (Owner not identified; photo by Bill Schaeffer, #622.)

BACK COVER: Escape from a muddy field many years ago. The driver hunches forward, perhaps to see better through the dirty glass, while the female passenger sits serene in the back. (Photo from Applegate & Applegate, courtesy of Bill Shipman, #617. See Bill's article on GM body styles in this issue.)

Perhaps because of our greater emphasis on the spoken word — a consequence of course of television and the modern telephone — we tend to find boring and difficult the classical academic style of expository writing that was taught when I was a boy. (I am myself no exception.) Therefore I have tried to use a brighter conversational style in at least some Torque Tube material, and as well, to include some matter that is entertaining rather than purely instructive. Such brighter conversational style includes the occasional use of vernacular expletives that no one save the producers of "plain-brown-wrapper" material would have put in print 30 years ago. I mean "four-letter words": e.g. "shit". Persons of some venerability, who remember the great uproar in the press when Franklin Roosevelt went into a voting booth in 1944 and, having had difficulty with the levers, came out saying "this damn thing won't work", or whose mouths were washed out upon being caught saying "gosh darn", may find such usage unseemly. To them I apologize and plead that art must imitate life. Doubtless the usage will continue, but with no greater frequency than heretofore, and with no wider selection of vernacularisms than already used. Even I, who have been known to wear a "no bullshit" tie to serious meetings, believe that some things should be left to "R-rated" films. However, as I have said, a certain amount of Impertinent and Scandalous Matter does serve to get people's attention, and I have come to believe that getting people's attention, in one way or another, is often the secret of success.

OUR ANNUAL OCCUPATION SURVEY

Set forth below is my annual listing of the occupations, professions, callings, vocations, or whatever you choose to call them, of our membership — or more precisely, of that portion (about 80%) of the membership that chose to fill out the "Optional" part of this year's Application/Roster Info Form. As in the past, the classification into groups is more-or-less my own invention and to some extent arbitrary, but does serve to give a fairly decent picture. I cut off at two; that is, a profession or vocation having only one practitioner is lumped into one of the general categories (e.g. "Misc. Other Businesses") even though it could be clearly described. This was done to avoid too lengthy a list. "Contractors" and "Crafts" are not broken down in the main list, but footnotes list individual specialties having more than one practitioner. The line between "Crafts" and "Technicians" is a fuzzy one; my separation is based on descriptions generally used, but, as noted above, is probably arbitrary to some degree. Into "Technicians" I put a few jobs that are not "white-collar" and defied other classification. Several non-retail businesses likewise either could not be fit into a general category, or were not too clearly described, or had only one practitioner. In these cases, the persons were included under "Misc. Other Businesses."

(CONTINUED)



STILL IN LOVE AFTER ALL THESE YEARS. Harry Logan (#651) sent in two photos. One, taken at the 1990 West Coast Meet, shows Harry and his beautiful 1938 Century sport coupe. (Harry's not bad-looking himself.) The other shows Harry as a young man. "Little did I know," he says, "when this photo was taken of me 42 years ago with a friend's '37 Buick, that I'd still be in love with these cars today." Thanks, Harry; little did I know 42 years ago, either.



Also as in the past, I tried to distinguish, where practical, owners or principals of businesses from employees of larger companies. Thus, for example, "Auto Parts" is intended to include proprietors of such businesses, whereas a person who is, say, manager of a NAPA store would be included under "Managers." This obviously does not work in all cases: an engineer might work for a corporation, or might manage a department or group of persons within that corporation, or might have his own engineering firm. If he called himself an "engineer" on the form he's an "engineer" on the list; per contra, if he called himself a "plant manager," an "operations supervisor" or the like, he's a "manager" on the list.

If a person described himself as a "retired machinist", say, he is listed under "Retired." "Retired" is of course the largest single category, and accounts for about 17% of the total. When I first started doing these lists about four years ago, "Retired" was about 15%, and so has crept up slightly, but I believe this is only paralleling the trend in the U.S. population as a whole.

Whatever the failings or drawbacks of the classifications, I think the exercise is interesting. Here's the list.

Art; design; photography	4	Insurance	2	Truck drivers	5
Accounting	4	Investments	6	Trucking businesses	4
Architecture	3	Law Enforcement	8	RETIRED	55
Auto dealers	5	Lawyers	6	TOTAL	325
Auto parts	2	Managers; supervisors	20		
Auto repair	9	Manufacturing	5		
Auto restorations	4	Medicine	8		
Banking, finance	3	Misc. other businesses	13		
Civil & postal service	17	Music	2		
Consultants	2	Pharmacy	3		
Contractors*	21	Printing; publishing	5		
Crafts (machinists, carpenters, etc.)**	21				
Data processing	3				
Dentistry	4	Radio; TV; films	2		
Education	13	Real Estate	5		
Engineering	22	Retail businesses	10		
Farming; ranching	5	Sales; purchasing	14		
Firefighters	2	Technicians (electronics, etc.)	8		

*Contractors: roofing, 2; masonry, 2; general construction, 5; electrical, 2; HVAC, 2; various other, 8.

**Crafts: machinists, tool & pattern makers, 5; carpenters, 2; equipment operators, 2; sheet metal, 2; floor installers, 2; auto mechanics, 3; various other, 5.

Why bother doing all this? As I have said before, it shows what is, to me, the best thing about the antique car hobby: it spans all professions, vocations, and income levels (other, I suppose, than the very lowest). I can meet all the lawyers I want to (and more) just being a lawyer, but through our Club, and the BCA, and other groups, I have come to know, made friends with, learned from, and been enriched by, a group of people the diversity of which is almost boundless. Even if you're "in the red" on your car, you're "in the black" on your friends, and that, my friends, is worth a lot.



AMOR VINCIT OMNIA: QUOTABLE QUOTES

You may recall that I put a space on the membership application/roster info forms in which the member may list his or her auto-related interests or expertise. I have never done a great deal with the information thus elicited, but occasionally it helps me find someone who has specific knowledge that I lack. Beyond that, there appear every year a few entries that are whimsical, or wistful, or even slightly outrageous, or otherwise especially worthy of being shared.

From the current crop, Kevin Donohue (#667) says, "I have a great affinity for spending a lot of money on autos and parts, that will never be recovered." In the same vein, Paul Cusano (#52) rightly claims considerable knowledge of '38s, gained through the "school of hard knocks" and the expenditure of "mucho dinero." Lawrence Di Barry (#688) is fortunate that he likes to work on his own cars: "I have to," he says, "I can't afford not to." Another member, who does not have a car, pleads "spousal veto" for an excuse, and with this many can sympathize. Here I urge patience and persistence: in many cases the spouse eventually gives up, or one comes to the point where one simply buys a car anyway, domestic harmony be damned. ("Just do it"; that is essentially how I got started, and it wasn't as messy as I had expected it might be.) Some persons suffering from Spousal Veto become "hiders", who buy cars with "play money" — i.e. a secret stash — and then hide them in the hope that the climate will eventually improve, at which time they may be brought out. This works occasionally, but is clearly risky, and sometimes generates those desperate "lost storage" ads. (Note to all spouses, de facto and de jure: I have it on the very highest authority that there are no "hiders" in this Club, and that no member has "play money".)

Robert Coulter (#340), who lives in Alaska where winter is long, dark, and often chilly, says he nevertheless tries to drive his car daily, and moreover, "learns by mistakes", but does not say how many he has made and thus how learned he has become. In any case, this is an admirable characteristic, by no means shared by everyone. Usus te plura docebit. James B. Smith (#465) has restored many cars from ruins, and enjoys "collecting and dragging them home." Quod cibus est alliis, alliis est venenum.

Three members described their expertise succinctly:

John Huffman (#623): "Nitpicker"
Dug Waggoner (#10): "Procrastinationist"
Pat Moyer (#665): "Shit-disturber"

Finally, Frank Canepa (#628) says: "I love old cars and pretty women." Amen, brother!
Amor vincit omnia, et nos cedamus amori.

VERITAS

I have been accused of making up pseudo-Latin and putting it in these pages from time to time to make myself look learned. This is calumny. To be sure, I do it for effect, but all is 100% authentic Latin. Generally the phrases are in the nature of maxims or aphorisms. (The only one I ever made up was "Strombergia est omnis divisa in partes tres" — "all Strombergs are divided into three parts" — and this was clearly labelled as a paraphrase of the opening line of Caesar's Gallic Wars.)

To show you that this is so, here are translations of the three aphorisms included in the paragraphs quoting members' roster info forms. "Usus...etc.": "Experience teaches you much." "Quod cibus...etc.": "What is food for some is poison for others"; that is to say, one man's trash is another's good shit. "Amor vincit...": From Virgil, "love conquers all, and we should all yield to love." Good advice, surely, invented long before the Woodstock Generation. "Veritas", the motto of Harvard University, means "truth", which is what you almost invariably find in these pages. Almost invariably.

CONGRATULATIONS

The December issue of Antique Automobile reports that at the 1990 AACA Grand National Meet last summer in Canandaigua, New York, two Club members did well, as usual. Guy Bennett (#161) took a First (Repeat Preservation) with his 1937 Special convertible coupe, and Paul Cusano (#52) a First (First Preservation) with his 1938 Special four-door convertible. Both of these cars have been consistent prize winners in the past. Consistent also in his diligent pursuit of excellence is Paul Cusano who, if he followed past practice, drove there from New Jersey and then spent two days, dawn to dusk, going over the car with toothbrushes and cotton swabs. I have twitted Paul about this in the past, and once offered to buy him a battery-powered electric toothbrush to make things easier, but the truth is that I consider his patience and attention to detail so intimidating that I must fight back. No slouch on presenting a beautiful car for show either is Guy Bennett, who operates Guy Bennett Buick in Wayland, New York. The '37 is a car Guy's father sold new at the same dealership, and which Guy acquired many years later after it had passed through the hands of several owners. Well done, guys.

SUPPORT OUR ADVERTISERS

Last time I gave a brief editorial "plug" to Hampton Coach. In so doing, I did not mean to slight any of our other commercial advertisers. Each of them runs an excellent business, and each has continually improved its product line and service over the years. You can, in my opinion, deal with any of them with confidence. They have supported the Club, and deserve our support and patronage.

YET MORE VANITY

Here are two more finds from my continuing search for odd-ball "vanity" license plates. A Honda Accord seen south of Columbus sports "AH CHU." The Ohio Valley is not a good place for hay-fever sufferers, as I discovered after I moved here, and maybe this guy is the champion sufferer. (I am now looking for a Japanese car with "AH SO"; there's bound to be one here somewhere.) The other day, right in front of my local supermarket, I saw a very low-slung white car; license plate: "WOT ZAT". Indeed, I thought, just "wot" in hell is "zat"? Turned out to be a Lotus, of all things. I suppose a lot of people ask the owner "wot zat?"

THANK YOU

I want to express my thanks to the many Club members for the christmas cards and nice surprises in some cards which I received at Christmas. The notes you wrote to me were very nice and meant a lot. It is always nice to hear that your efforts are appreciated. I do have to admit that I enjoy the typing I do for the Torque Tube, but it is also nice to know that the Club members do to.

Happy New Year everyone!

Carmen

From my secretary. My thanks as well!
— Bill



Commentary:



WHAT ABOUT UNLEADED GAS?

The subject of gasoline continues to interest our members, and some are worried about the absence of tetraethyl lead in modern gas. We have discussed this subject several times in the past, but it seems to be worth covering again. I am certainly not an expert on this, but I will try to tell you how things look to me.

Back in the 1920s, it was discovered that the addition of small amounts of tetraethyl lead (that is, lead combined with the simple hydrocarbon radical "ethyl" which forms the basis of many alcohols, ether, etc.) to gasoline would improve its "octane" rating: that is, its ability to resist "knock" or pre-ignition. I believe the Ethyl Corporation held a patent on either the compound or the process for combining it into motor fuel (or both). The higher "octane"-rated gasolines in those days and in the 1930s were called "high-test" or "ethyl", and the pumps dispensing gas with tetraethyl lead in it had the Ethyl Corporation's yellow trademark on them. (Ethyl Corporation is now, I believe, defunct.) It may surprise some of you to learn that back then only "high-test" gas had lead in it; that is, "regular" gas was unleaded gas. This situation changed as auto manufacturers pushed compression ratios higher, and by the late 1940s and 1950s, most all gas had some tetraethyl lead in it.

Adding tetraethyl lead was cheaper than refining a higher-octane product, and it may be that some oil companies did not have the physical capacity to refine gas to an octane rating in the 75-80 range. However, Standard Oil of Indiana (Amoco) refined and sold unleaded "premium" gas in the East and Midwest throughout the 1930s and 1940s, and, indeed, to the present day.

Originally, a red color was added to "high-test" gas to distinguish it from the relatively colorless "regular" gas. "Regular" gas — i.e. gas without lead in it — was in the 1920s and 1930s sometimes called "white gas." Many, many cars with lower compression ratios than their high-powered cousins ran around in the 1930s on "white" or unleaded gas. Let's take a look here at the 1937 Buick Shop Manual.

"Series 60-80-90 engines are timed at the factory for Ethyl gasoline (75 octane or better)...." (p. 205)

"Series 40 timing is intended for normal white gasoline having an octane rating of approximately 70." (p. 201)

Well, now, if hundreds of thousands of Chevrolets, Plymouths, Buick Specials, and other makes were running in the 1930s on "white", or unleaded gas, and more on unleaded Amoco throughout the 1940s, '50s and '60s, what's all the furor about taking lead out of gas today? To hear some people talk, one would think all 1930s engines would fall apart after two or three tankfuls of "modern" gas. If that is so, how come they didn't fall apart then? The short answer is: it isn't so.

As indicated above, lead was originally added to gasoline to improve its anti-knock properties, or "octane" rating. ("Octane" is the name of a hydrocarbon compound that occurs naturally in crude petroleum. There are also "heptane", "pentane" and I think some others similarly named.) As a general proposition, the more octane, the more resistant the gas is to pre-ignition. "Octane number" came to be a measure of anti-knock property, even though it does not in fact refer to or measure octane content. "Octane number" can be increased by adding tetraethyl lead — or other compounds, e.g. ethanol or methanol — to gasoline. In the 1930s it was discovered that lead also had another positive benefit: it decreased the wearing down or "recession" of valve "seats" and valve "faces," i.e. that part of the valve that comes in contact with the seat when the valve is closed. This "lubricating" effect of lead cut down considerably the intervals between necessary "valve jobs." How come cars ran around on unleaded or "white" gas in the 1930s? They ran fine, but engines routinely got "valve jobs" every 25,000 or 30,000 miles, and when (or if) things got to the point where valves and cylinder heads could not be "ground" any more, they were replaced. Much more engine repair and "overhaul" work was considered routine and acceptable in the 1930s than we consider acceptable today for modern cars. People did tune-ups every 10,000 miles, valve jobs every 30,000 miles, replaced rings and bearings after 40,000 or 50,000 miles. Hastings and Perfect Circle routinely advertised their products in popular magazines like The Saturday Evening Post and Look. (I remember these ads. "Next time your car needs a ring job, look for this sign...", etc.)

Just how this "lubricating" effect takes place is not altogether clear to me, but it appears that the lead deposits on the valve seats, "cushioning" them. According to a recent article by Matt Joseph, tiny particles of metal or carbon imbed in valve faces. When subjected to high temperatures, carbon can become quite hard. The repeated striking of a cast-iron valve seat by the irregular surface caused by the presence of these tiny abrasive particles on the valve results in wear, or "recession". A thin deposit of lead oxide on the seat, continually renewed by the incoming gasoline, apparently absorbs this abrasion.

Some lead escaped out the tailpipe, and therein lay one of its drawbacks. It destroyed the effectiveness of catalytic converters. Moreover, lead, as we now know, is highly toxic, and breathing in even small amounts over a period of time has undeniably bad effects on the body, especially the central nervous system. (At least one author has attributed the Decline and Fall of the Roman Empire to the widespread use of lead in water pipes and drinking vessels.) Lead is also not without its problems for automotive systems. Exhaust pipes and mufflers last far longer on unleaded gas, and lead deposits on engine parts other than valve seats have a deleterious effect. (If you have ever noticed a gooey clay-like sludge in the oil pan of a car run for many years on the old heavily-leaded "premium" gasolines, you'll know what I'm referring to here: that shit is lead. Take it out and dispose of it carefully.)

Now let's get back to the problems, such as they may be, associated with running a 50-year-old car on unleaded gas. We have already seen that the absence of lead will have some beneficial effects. What about the allegedly harmful effects? The consensus of all I have read by presumably knowledgeable authors is that for the average antique car, or for most antique cars, valve seat recession resulting from unleaded gas is really not much of a problem. Recession occurs mainly at the higher engine RPM ranges, and under heavy loads, and heavy loads do more damage than high speeds. According to one author, recession is minimal at RPM levels below 70% of the engine's maximum horsepower. This — assuming it is correct — does not help those of us who drive mostly at highway speeds, because that level translates to around 35-40 MPH for a '37 or '38 Buick. However, even 60 MPH in flat country, where a 40-series car is close to 100% on its horsepower curve, will not do major damage unless it is continued for tens of thousands of miles. Very few applications to which an antique car is put will subject the engine to heavy loading. I don't know of anyone who uses his car to pull a trailer, for instance. If you do a lot of touring in mountainous country, where you're pulling up long grades with passengers on board, you probably should be concerned about valve seat recession over the long term. For the great majority of you, however, my advice is: don't worry about unleaded gas.

How about the various "lead substitutes" that are now on the market? I would approach them with considerable caution. As I understand things, these are compounds of various other "soft" metals, that it is claimed will deposit on valve seats, just as lead did, and provide the same "cushioning" or "lubricating" effect. How well these work, if at all, has yet to be demonstrated conclusively, and some may have their own drawbacks. One author advises against compounds of nickel, cadmium, phosphorus and potassium, and recommends an additive ("Red-Line") containing sodium. Auto Hardware Specialties advertises a product from Champion Spark Plug that is said to be "performance proven", and this is at least associated with the names of two reputable businesses. But none of the advertisements I have seen, nor any of the actual containers of "lead substitute" I have inspected in auto parts stores, say what is in the stuff. Needless to say, none offers any guarantee or assurance of performance beyond the usual sales puffing. In view of the hundreds of automotive "additive" products promoted over the years that are worthless at best, and harmful or dangerous at worst, I believe considerable skepticism is warranted. Here, as elsewhere, a major brand name associated with quality products is the best choice, and I would go for the Champion Spark Plug product over the numerous other names associated with "miracle" additives found in discount auto parts stores — if I were going to use the stuff at all. Try it if you want to, but I wouldn't bet the farm on "lead substitutes" until their effectiveness and safety is more clearly demonstrated.

At this point we might pause to distinguish "lead substitutes" from "octane boosters." Don't confuse these. You don't need to boost octane. "Octane booster" products are worthless at best in a 50-year-old car, and dangerous and corrosive at worst.

We should also distinguish "lead substitutes" from products such as Marvel Mystery Oil. Because the latter is advertised as a "top cylinder lubricator", some people are adding it to gas on the theory that it will substitute for the "lubricating" effect of lead. This is, in my opinion, the result of confusion over the loose use of the word "lubricate" in references to lead. Lead does not, and did not, "lubricate" anything in the manner that petroleum products "lubricate". Lead, as we have seen, deposits on valve seats and provides a protective "cushion" against abrasion. I do not believe Marvel Mystery Oil will have the same effect, and it does not claim to be a "lead substitute." I have nothing against Marvel Mystery Oil; indeed I think it is one of the few "additive" products that is worth buying, and I have used it myself in new engines and as a gasoline additive. Many people swear by it, and maintain that it retards the formation of gum and carbon deposits. Putting it in your gas is probably a good idea, and it will certainly do no harm. The cost is modest — about \$1.00 per tankful. However, I think reliance on Marvel as a long-term deterrent to valve seat recession is misplaced.

The best way to cope with potential valve seat recession is, of course, to have hardened inserts put into your head. (I mean the cylinder head in your car; there's probably enough stuff in your bodily head already, and maybe too much.) If you really want peace of mind, that's what you should do, and it's really not as big a job, nor as expensive, as you might think. Naturally you will need to take the head off, which means first draining all coolant and taking off the water outlet, and the carburetor and the manifolds, and the oil line, spark plugs, etc., etc. Loosen the head by tapping in little wooden wedges, not a big screwdriver. You can take off the rocker arm assembly first or leave it on the head and use it as something to grip when you take the head off. Warning: the head, especially on the 320 engine, is heavy; either use a hoist or have two helpers. If you drop it, you're in big trouble. When you have the head off, finish removing the valve train if you have not already done so, then take the head to any good automotive machine shop. After you finish answering all their questions ("Geez, wat da hell zat off?") tell them you need hardened valve seat inserts put in it. While it's there, they can clean it up and check all the mating surfaces for flatness. I did this in the course of my current engine rebuild job (almost finished now), and the cost was surprisingly modest: \$10 per insert, or \$160 in all.

While the machine shop is working, get a Fel-Pro gasket set. The part numbers are listed in a separate entry herein.

Even if you pay someone to take things apart and put them back together for you, the total cost of everything should not exceed \$500.

One final word about gasoline before we leave the subject for this issue. There is, in my opinion, no reason whatever to use "premium" gas in a 50-year-old car and some reason not to. Even if you have "upgraded" your engine with later-year pistons or a little head-milling to achieve a higher compression ratio, you will be nowhere near the level where 87 octane gas won't perform well. If your engine "knocks" on 87 octane, there's something wrong with the timing and you should fix it. Remember, 76 octane was "high-test" 50 years ago. Modern "premium" gas, besides being considerably more expensive, has more of the "aromatic" volatile compounds that are apt to cause driveability problems and vapor lock. Modern cars don't vapor lock because they have pressurized fuel systems, electric transfer pumps, and all sorts of gadgetry to prevent that. Save your money.

In a forthcoming issue I will try to have a brief look at what the new Clean Air Act may have in store for us. There will be some changes in gasoline formulations over the next decade, and it is likely that none will be favorable to the antique car owners.

HISTORY



1937 PONTIAC DELUXE EIGHT 4-DOOR TOURING SEDAN

GM INTERCHANGEABLE BODIES IN THE 1930'S

By William D. Shipman (#617)

EDITOR'S NOTE: The following article is derived from a longer piece dealing with the General Motors interchangeable body program during the pre-World War II decade, that Bill Shipman prepared for publication by the Society of Automotive Historians. This program, helped not a little by Chrysler's often-humdrum styling and Henry Ford's diehard conservatism, brought GM to the forefront, and probably sounded the first death knell for the independents that perished in the 1950s. Bill Shipman is Research Professor of Economics at Bowdoin College in Brunswick, Maine.

Prior to 1936 there was only limited interchangeability of bodies between Buick and other GM divisions. Buick and Cadillac shared some (Fisher) bodies in 1934 and 1935, but this involved only a few models. Fisher's first so-called "A" body, introduced in 1933, was used that year and in 1934 by Chevrolet and Pontiac...both sedans and coupes. Oldsmobile used a modified version both years, but with significant differences among its own models. In 1934 a small four-door sedan with built-in trunk was used by Pontiac, Olds, and Buick...This was the first year of the latter's Series 40. The interchangeability program was expanded in 1935 with the introduction of a new "A" body having a continuous steel "turret" top. The basic body took several different forms: two-door and four-door sedans with and without built-in trunks; also, a new three-window coupe and convertible shell were available. These bodies were adopted by Chevrolet, Pontiac, Olds, and LaSalle and were essentially identical except for somewhat "boxier" rear quarters on the Chevrolet. Buick and Cadillac went their own way in 1935 but, as indicated, shared some body shells held over from 1934.

The 1935 "all steel" (actually there was still some wood for sound deadening) "A" bodies were continued into 1936 with only minor modifications, such as reversing the hinges and handles on the front doors. Buick and Cadillac now joined the crowd with a body that was identical to that used by Pontiac, Olds, and LaSalle except (again) for slightly different rear contours (and backlight divider). This body could be found on the Series 40 and 60 Buicks and on the new Series 60 Cadillac. GM was thus, for the moment, extending the use of its "A" body across all divisions; the same was true for the coupe version. The



Rear view of 1935 La Salle shows its striking similarity to 1937 Roadmaster and Limited bodies. (The 1935 Buick was totally different; it was, in fact, the 1934 Buick.) The same essential configuration was used on all 1936 Buick models.

large Series 80 and 90 Buicks also shared body shells with some Series 70 and 80 Cadillacs in 1936. While Buick's were "made by Fisher" and Cadillac's "made by Fleetwood", their essential similarity suggest common dies if not a common plant. The adoption by Buick of the "A" bodies, combined with other styling and mechanical improvements, led to a tripling of unit sales over 1935, while industry output as a whole rose only 32%.

The year 1937 saw the introduction of Fisher's first "B" body. This body was then used in 1937 and 1938 by all divisions except Chevrolet, which had its own new "A" body. The "B" shell was longer and wider than its predecessors and had a more sloping rear end with divided backlight. It could be had in either two-door or four-door form and with or without trunk. A corresponding five-window coupe was also available, as were a convertible coupe and sedan. The excellent proportions and contours achieved in this "B" body did wonders for GM's reputation and I think help to explain the existence of our own club. Buick sales in the 1937 model year increased another 40%, rising to about 220,000 units, the highest figure since 1928. (Industry sales were up 10% that year; within GM only LaSalle — whose sales more than doubled to 32,000 units — outperformed Buick in percentage terms.) Of course, the attractive "B" body was only one factor in explaining the sales performance of Buick (and LaSalle) in 1937. Front-end styling was also very important, as were mechanical features; Oldsmobile sales were essentially flat despite its use of the same body, while Pontiac, with a handsomely restyled grille and front quarters, gained about 34%.

The Series 80 and 90 Buicks in 1937 continued using the large 1936 body shells, now sharing them with Cadillac's Series 65 and (some) 75 models, respectively. While the new front end styling contributed significantly to the appearance of these Buicks, sales were somewhat below 1936 levels. (Production of the Series 80 "convertible phaeton" dropped only slightly, from 1,064 in 1936 to 1,040 in 1937, excluding exports.) One possible explanation is that the large Buicks had their own replacement buying cycle and that 1936 sales were high due to deferred demand during the preceding, slack years.

Buick sales were remarkably strong in 1938, despite the severe business recession that year. While industry and GM unit sales were down over 40%, with some marques falling more than 60%, Buick suffered only a 23% decline. (These are model years.) This performance had the effect of jumping Buick to fourth place in sales, a position it had not occupied since 1931. The 1937 "B" body was continued but with modest changes in the grille which retained the handsome proportions of 1937 while widening (and thus accentuating) intervals between bright and dark surfaces. Some mechanical improvements — equally well known to the present audience — were also incorporated in the 1938 models. As in 1937, the "B" body was shared with all GM divisions except Chevrolet. While most writers attribute the remarkable 1938 sales performance (Lincoln Zephyr, with a 36% decline in unit sales, was the only marque to come close to Buick) to the face lift and mechanical advances already mentioned, my own feeling is that 1938 sales benefitted also from a build-up of demand created by the impact of the 1937 models but deferred that year for whatever reason.



1936 Limited. Change the wheels, tail lamps and runningboard and its a '37 from the cowl back, but the front fenders are different.



'37 "plain-back" or "steamline" sedan version of the new "B" body, which was used in '37 and '38 by all GM divisions except Chevrolet.

At the upper end of Buick's line, a new, more streamlined and wider body (with larger windows) was used for the Series 80 and shared with the Cadillac Series 65. This body was then continued by Buick, but not Cadillac, through the 1940 model year. A distinguishing characteristic was the angled rear door post and matching rear body contour which enhanced the streamline effect. A new, slightly larger Series 90 body also appeared in 1938, but with no exact counterpart in Cadillac. These bodies also were continued through 1940. (Both 80 and 90 series had, from 1939, additional stainless trim surrounding the three side-window assembly.) While the large series Buicks in 1938 were certainly handsome cars, the business recession took its toll and sales were less than half those of 1937.



'37 Special coupe. The '36 coupe did not have rear quarter windows; some '36 sport coupe models had a rumble seat and one (or two) fender-mounted spare wheels, and some had a "trunk" and a single small "opera seat". The '36 rumble seat coupe body had no provision for an internally-carried spare wheel.



'38 Roadmaster owned by Ed DePouli (#310) at Flint.



1940 Limited shows body virtually identical to 1938 except for the hood sides and the front fenders, yet the car manages to have a much different "look". Compare this with '38 Roadmaster picture and then with the 1940 Super sedan (series 50) which shared body panels with the '40 Roadmaster (series 70). The '40 Super/Roadmaster body was completely new.



An entirely new "B" body was introduced by GM in 1939, and then continued through 1940. Like the 1938 large Buick example, it featured a larger window area and more sloping rear quarters with parallel door post. It also had thinner front door posts and a single-light rear window. Again, the new "B" was used in all divisions from Pontiac through Cadillac (Model 61). While the body itself represented some advance in styling, Buick's ability to capitalize on it was hindered by a number of planning errors; namely, the abbreviated "bob-tail" frame used on the early small series models, a "waterfall" grille which did not provide adequate air flow, and a dubious fender well design that had the spare wheel cover lapping the fender (Series 40 and 60) and preventing the front door from opening all the way (Series 40). As it turned out, none of these prevented Buick from holding on to fourth place in 1939, and all were corrected by 1940. As noted, bodies used on the Series 80 and 90 models were essentially unchanged from 1938. Nor were they interchangeable with those used by any other GM division. (On the latter subject, it is of some interest to note that GM in 1939 once again sanctioned the use of Chevrolet's "A" body — now changed every year — on the lowest priced Pontiacs and Oldsmobiles.)

The year 1940 saw the introduction of GM's "C" body, like the "B" available to all divisions save Chevrolet. (Chevrolet had its own new "A" body, including a coupe with beautiful lines.) This availability meant that the Pontiac Series 29 shared the same body with the Cadillac Series 62. Buick used the "C" body for its Series 50 and 70 models, with the 70 having the (now customary) longer hood to accommodate its larger engine. This was no minor change in design: the "C" bodies were notably lower, wider, rounder (thus the "torpedo" designation), and were mounted farther forward on the frame. They also had more angled windshields and back lights and, in the sedans, no rear quarter windows. While they showed the influence of William Mitchell's stunning Cadillac 60S introduced in 1938, they in turn fathered a whole generation of automobile bodies reaching into the 1950s and beyond. Inevitably, they made the older "B" bodies seem old fashioned (the third generation of "B"s did not arrive until 1941) and thus shifted public taste still farther from the now vintage styling of 1937 and 1938.



1940 Buick Super (series 50) shared body panels with 1940 Roadmasters (series 70).

If the foregoing sounds academic -- and it should, considering its author -- it is well to remember that the interchangeable body program gave GM a great cost advantage over most of its competitors. It thus helped to raise GM's own profitability and to weaken further the remaining independents. In retrospect, the remarkable thing about the program was GM's ability to create different appearing automobiles -- and some very good looking ones at that -- while using only a few basic body shells. Today, of course, everybody's doing it.

References:

- Kimes and Clark, Standard Catalog of American Cars, 1805-1942 (1985)
- Dunham and Gustin, The Buick, A Complete History (1985 Edition)
- Dammann, Seventy Years of Buick (Revised Edition, 1973?)
- General Motors Corp., Body Parts Manuals (various dates)
- Motor, Annual Show Issues (1933-1941)



A POSTSCRIPT

Apropos my discussion of Buick's success in the late '30s, I recently came across some interesting data in Fortune for that period. Each year between 1935 and 1938, the Fortune Poll (actually Roper, I believe) asked a sample of the U.S. public the following question:

When you replace your present car, which make do you plan to buy?

Here is a breakdown of answers from those who definitely knew which make they would buy next:

	<u>7/35</u>	<u>4/36</u>	<u>4/37</u>	<u>4/38</u>
Chevrolet	25.1%	24.8%	28.4%	25.6%
Ford	34.5	30.2	22.3	23.9
Plymouth	12.6	14.0	12.0	11.8
Buick	5.0	5.8	8.3	9.5
Dodge	5.5	6.3	7.3	6.0
Pontiac	4.0	3.2	4.9	4.8
Oldsmobile	2.4	4.1	4.5	4.6
Packard			2.4	2.7
Chrysler	2.1	2.3	2.3	1.9
Studebaker	2.4	1.6	1.9	2.3

Only one star performer here! Unfortunately, Fortune discontinued this particular question after 1938.



Bill Shipman's own 1938 Roadmaster posed here against a background of federal-period New England architecture, itself a style hard to improve upon.

Photo Album



A used-car business in Silver Spring, Maryland is shown in this 1940s photo found by Charles Jekofsky (#524). At least one '38 Buick appears (first car in the right-hand row) along with a few Pontiacs and Fords. The sign on the building reads "Visit Our Sales Room - Select a Car at Your Price."



SUMMER FUN. Here we see a nice '38 model 41 owned by Bill Mack (#839) of Woonsocket, Rhode Island. Posing with the car at an event last summer are "Buster" Gazzara (#817) of Randolph, Mass. and Jimmy, son of Jim Terruso (#816) of West Bridgewater, Mass. The car appears to have a sealed-beam headlight conversion.

ADVENTURES

● My Crazy Brother ●

BY AL ANDERSON (#723)

It all started on a Saturday morning in early October, 1960. My brother Pete and I had just finished our last repair for the day in my garage when our brother Don called. He said he was broken down in Wheeling, West Virginia, on his way home from Navy boot camp in Long Beach, California. He had left New Jersey a few months before in a beautiful, low-mileage, well-kept '37 model 61. The Century had taken him to California without mishap, but now something was wrong with the transmission. Well, it did not take much prodding to grab our wives Joan and Diane and take off in my '56 - 66R for West Virginia.

We arrived at Wheeling after midnight and located Don parked behind a diner. However, it was late and we were beat so my wife and I slept in the '56 and the others slept in the '37. When I awoke in the morning, to my surprise the '37 Century was not there but a big ol' Limited was in its place. It seems brother Don got conned out of his Century and into the Limited by a smooth talker in California. Anyway, inspection of the transmission showed a hand grenade or something had gone off in there. "Uh oh," I said, "This Buick isn't going anywhere."

To this Don replied, "Well, I guess you better tow me home." He added he had a chain.

I said, "You are nuts. I will not tear up my '56 trying to get this stump puller to New Jersey."

Words went to words - not the printable kind! If I remember right, it kind of ended with Don suggesting I do something nasty to myself. He then got into his '37 and mumbling something about he'd get it home if he had to get it there in first gear (only first and reverse were working), he took off.

Well, he put the pedal to the metal and headed east. We followed along behind him and we all had the same feeling - the best thing that could happen would be for the transmission to go completely. About twenty miles down the road, Don had to stop for gas. That old Buick was really sucking it down with only first gear usable. As Don tried to leave the station, the '37 lurched about two feet and locked up. "Ah," I thought, "our prayers have been answered" - but wait, he's got it going in reverse! He stopped; tried first again. Nothing. Back in reverse.

At this time, brother Pete got in the passenger side to console Don on the apparent demise of his Buick. Don gave Pete a strange look and muttered, "Like hell it is!" He then backed around my '56 and right out onto the highway pointing west but going east. He got that big 90-series wound up in reverse and, leaning out the window, did one hell of a job moving it smoothly towards home.

Well, believe it or not, that damn car and my crazy brother went to the Pennsylvania state line. The only thing that stopped him was the toll barrier in the Penn Turnpike. They told him to get the hell out of there or they would call the cops. He backed around and went looking for another route. About a mile or so later, thank God, the rest of the transmission died. He slid into a closed gas station, still in reverse. For thirty minutes or so he tried to get it to move again, but the transmission was having no more and refused to give. Finally, a very dejected Don grabbed his duffle bag and a few other items and reluctantly gave it up. He left the title and a note for the station owner and we got on our way back to New Jersey.

This really happened, and I can remember it as though it was a week ago. It is a good distance from Wheeling to Pennsylvania and most of it was done in reverse. I will never forget the determination of Don, or the look on Pete's face as he sat staring at my '56 Buick and us as Don ran in reverse. At times we cracked up it seemed so funny. I remember the old guy sitting outside an old time general store looking at Don as he backed in for directions and telling him he was going the right way but pointing in the wrong direction, the people leaving church after services who just stopped and gawked as the big Buick backed by, the 18-wheeler that almost ran off the road as the driver hung half out of the truck looking but not believing what he was seeing and, finally, occasionally passing a slow moving car.

Well, Don went back to the Navy and the USS Hornet, and we did not see much of him for a couple of years. However, it was just as well, for it took him at least that long to stop mourning the loss of his beloved '37 Limited. When he got out of the Navy, he went and bought a '39 -61 and, oh well, that's story for another time.

EDITOR'S NOTE: Hell of a story, wasn't it, folks? Navy "boot camp" must have taught persistence in those days, if nothing else. I wonder if the Century and the Limited have survived. I suppose the former had a better chance, but I guess in either case we'll never know.





TECHNICAL TIPS

WOODGRAINING

Can anybody recommend a good woodgraining establishment that can produce a reasonably-authentic look at a reasonably-acceptable price? The "king" of this work for '30s and '40s Buicks at one time was Bennie Estes in Florida, but I am told Estes is now retired, or at all events works when he feels like it — which is not often — and charges a princely price. Dave Lewis at one time used an outfit in Texas called Elmo's Grainmobile, but Dave no longer recommends Elmo. There are several advertisers in Hemmings, but I know nothing about any of them. BCA member Ken Liska advertises in the Bugle, but I know nothing about his work either. A really top-flight restoration demands professional woodgraining using authentic patterns. Many people try to do it themselves; sometimes the results are not bad at all and please the owners, but to me amateur work almost always looks like amateur work. How about this, folks?

DON'T NEGLECT THE DISTRIBUTOR

By Mike Adler (#103)

I would like to relate a warning and solution to a problem I had with my engine rebuilding. I had the entire engine rebuilt with new pistons, insert rods (with the help of set which Dave Lewis found), new valve guides, cam bushings, rebuilt oil and water pumps, etc. However, the one thing that I did not rebuild was the distributor. This is what caused me a major problem.

When I put the engine together I used the original distributor. The car seemed to run fine, so I assumed that the distributor was functioning correctly. Since I don't put much mileage on the car I ran with this distributor for several years. However, after I took the car out of winter storage last summer and was driving it around the block it died on me. I towed it home and found that it was getting gas and had a good spark. I then checked the time and found that the distributor was off a tooth. No problem, I just took out the distributor and put it back in the correct tooth. The car started up fine but when I gave it gas it died again. When I checked the timing the distributor was again off one tooth. I then pulled the distributor and checked the distributor gears, and found that the gear on the camshaft was so worn that some of the teeth looked like knife edges. This was caused by worn bushings in the distributor. I would highly recommend that anyone rebuilding an engine have the distributor rebuilt.

I then had to replace the camshaft and have the distributor rebuilt. The distributor was rebuilt by an outfit in Glassboro, New Jersey named Todd's Antique Auto Parts. Frank and his father Al are very reputable and rebuild clutches, starters, generators, etc. in addition to dealing in parts, and their prices are reasonable. They also happened to have three Buick special engines for parts. I took off from work one day and went to get a replacement camshaft. Two of the cams were no good but the last was in terrific shape, much better than the cam in my engine. However, the engine was a '49 with hydraulic lifters.

At this point I suggest that all "purists" skip to the next article. I made a snap decision to put the hydraulic camshaft along with the lifters, pushrods and rocker arms in my engine. With help from a member (Jack Reynolds) of our local BCA chapter, who is a true-blue Buick man, we cleaned all the parts and put them in my engine. The cam works perfectly and you cannot tell that the engine is running when you stand next to the car. The performance on the road is very smooth and the car is a pleasure to drive.

EDITOR'S NOTE: Our thanks to Mike for this excellent advice. It is relatively simple to remove, check out, and repair a distributor. It is one hell of a lot more difficult to replace a camshaft. It must come out from the front of the engine, which means that, at a minimum, the nose pieces, fenders and radiator must come off first. Mike also reminds us that, if you are thinking of replacing your cam with one from a later-year engine: (a) you must not use a '48 or later cam designed for hydraulic lifters; or (b) if you use the hydraulic-lifter cam, you must also use the pushrods and rocker arms from the later engine, as well as (of course) the hydraulic lifters. Likewise, if you are having a '37 or '38 cam ground, be sure the machine shop does not use the specs for the later hydraulic-lifter cam. The "grinds" (i.e. configuration of the lobes) are considerably different, and the hydraulic-lifter cam will not work with solid lifters.

Converting to hydraulic lifters is another of those "invisible upgrade" engine modifications that can improve performance, or at least make things quieter. (Some people of course think that some valve-train noise is part of the character of the car, and wouldn't dream of doing this.) I considered it during the course of my current engine rebuild, since I had either to find a good cam or have the journals on my old one built up, and several of my lifters were poor. I abandoned the idea upon getting a usable '37 cam and a bunch of NOS '37 lifters. Moreover, to tell the truth, I was at that point tired of looking for parts. Hydraulic lifters also virtually demand addition of a later-year oil filter.



CLUTCH REPLACEMENT

By Mike Adler (#103)

I will try and give you step by step instructions for replacing your clutch, pressure plate and release bearing. This is based on replacing the same parts on my '37-41.

1. Jack up the car as high as possible and put four good jack stands under the frame of the car.
2. Unbolt the rear shock links from the plate by which the rear end "U" bolts hold the rear springs to the rear end.
3. Unbolt the rear end "U" bolts and take them off.
4. Unbolt the four bolts that hold the front of the torque tube to the rear of the transmission universal joint.

5. You should then be able to slide the rear end/torque tube assembly back enough to be able to remove the transmission. The shop manual says that you have to disconnect the flexible brake line but I was able to slide my rear-end back far enough without disconnecting this line. However, if this is an original line I would highly suggest that you replace the line. If you decide to replace the line go to a local NAPA dealer and ask them to look in thier books and match up a line; a line slightly longer would be OK. They were able to do this with my car.

6. Next go inside the car and take off the cover over the transmission. It is also much easier to remove the transmission if you take off the top cover with the floor shift lever. Put a rag over the open transmission to keep out any foreign matter.

7. Take out one of the bottom bolts holding the transmission to the bell housing. Find two long bolts (two to four inches longer than the original bolt) with the same diameter and thread count and cut off the heads. Screw the cut off bolts into the lower bolt holes on the bell housing. This makes it much easier to slide the transmission off and on.

8. Unbolt the transmission support from the frame and bottom of the transmission and take it off.

9. Unbolt the top bolts holding the transmission to the bell housing.

10. You should now be able to slide the transmission back and remove it from the car. If you have a floor jack with wheels it is possible to use it to help you remove the transmission.

11. Take the dust cover off the bottom of the bell housing.

12. Take the release bearing off the clutch fork by removing the two clips which hold it to the fork.

13. You now have two alternative ways of taking out the clutch.

A. Take off the bolts holding the pressure plate to the flywheel by rotating the flywheel to get to all the bolts and then "negotiating" the parts out.

B. Put a small jack under the oil pan to support the engine (large block of wood between the jack and oil pan), then remove the bolts holding the bell housing to the block and motor mounts and take off the bell housing. It is then very easy to remove the bolts holding the clutch to the flywheel.

14. At this point I would suggest that you check the pilot bearing and ring gear to make sure they are OK. If the ring gear is worn it can be turned around on the flywheel by a machine shop. The pilot bearing and release bearing are readily available from Olcar Bearings.

For the clutch parts you might want to check with Todd's in Glassboro, NJ (609-881-6935). I have had very good luck getting parts at what I think are reasonable prices.

15. Putting the clutch back in it is best if you have a clutch alignment tool or an input shaft from another transmission. Make sure that the long part of the spline on the pressure plate is towards the transmission. Bolt the pressure plate loosely in place and insert the alignment tool or input shaft. Then you can tighten down the bolts holding the pressure plate to the flywheel. Try and tighten the bolts so that equal pressure is maintained on all the bolts. If you don't have an alignment tool or input shaft you can

leave the pressure plate slightly loose and slide the transmission onto the bell housing on the two long guide bolts and shift the clutch disk by hand until the transmission slides all the way into the bell housing. If you use this method put the release bearing onto the clutch fork before you slide the transmission on so you will not have to remove the transmission again. You would then tighten the bolts holding the pressure plate to the flywheel by rotating the flywheel.

The rest of the installation procedure is the reverse of the disassembly process.

As to the universal joint, ball and bushing, when you have the transmission out taking off the bolts at the housing allows you to get at the universal joint. Since the universal joint floats in oil there is a good possibility that it will not have to be replaced. However, the round packing should definitely be replaced. Replacement kits are advertised in various magazines. I had no success in finding a replacement bushing. What I did was to find a machine shop that fitted a plain bronze bushing to the housing. I recommend that you replace the bushing.



COOLING SYSTEMS AGAIN: TWO MORE QUESTIONS AND A TEST

The December 1990 issue of Skinned Knuckles continues that publication's series of engineering analyses of cooling system questions, with attacks on these two Big Ones: (1) which is better, plain water or 50% water, 50% ethylene glycol?; and (2) does the presence or absence of a thermostat affect cooling system performance?

Unlike the earlier article's learned analysis of the Awful Question (see Issue 3, page 20), the work on Question (1) above seems to me contrived. After working the matter around a bit, the author concludes (or appears to) that the 50-50 mix is better because some greater insurance against boil-over is provided. Well, we knew that. A 50-50 mix boils at a slightly higher temperature than plain water (ca. 225 vs. 212 degrees F. at sea level and atmospheric pressure). This knowledge does not help us very much, because what we really want to know is how to keep things from getting that bad in the first place.

Several authors, including one reprinted in the August/September 1989 CCCA Short Takes, claim that an engine will run cooler on plain water. (The reprint was sent to me by a member - I now forget who, but thanks.) This may well be true, because water has a greater capacity to absorb and transfer heat, and has less viscosity, than ethylene glycol. I have no conclusive verification of this proposition, but may try it myself next summer. (Modern engines must use water - ethylene glycol mixtures because they run at much higher temperatures.) Obviously enough, if one expects temperatures below freezing, plain water is a no-no. Perhaps less obvious, but equally important: plain water must have a corrosion inhibitor added to it. Good, "soft" (i.e. minimum mineral content) water should be used in any event. Distilled water is now available in many grocery markets, and is inexpensive enough.

On the Thermostat Question, the Skinned Knuckles author concludes that taking the thermostat out is a bad idea, because its presence tends to equalize pressures within the system and inhibit the formation of steam pockets. Also, the engine will warm

up a lot faster, which is beneficial even in warm weather. The by-pass valve (which we have discussed several times in the past) will not function correctly without a thermostat. We need to credit the designers of the straight 8 engine with some sense, even though the cooling system is not quite up to the standard of modern cars. The system was designed to work with a thermostat in place, summer and winter, and as I've said several times before, it should not be removed. Taking the thermostat out will not cure an overheating problem. Leave it in place. If it doesn't work right, get a new one. You can get either a 160-degree or 180-degree thermostat, plus the appropriate gasket, at any large NAPA store. NAPA numbers are 70 (160) and 170 (180). Or go to any auto parts dealer that carries Stant products and ask for S335 or S330 plus gasket A40 in whichever heat range you want. I prefer the 160, but some people use 180; the original thermostats were 170.

Before we again leave the subject of cooling systems — perhaps for the foreseeable future, unless Paul Culp comes through with the article he began 18 months ago before he got writer's block — I will report on a communication from Bob Cotant (#564). He says:

"Allow me to share a simple test you can perform to determine if in fact an engine is plagued by exhaust gas leakage into the coolant.

1. Start the engine and let it warm up.
2. Remove the radiator cap.
3. With the engine idling hold a finger over the end of the overflow tube. Within a minute the coolant will begin to rise. Remove the finger and the coolant level will drop to the original level.
4. You can repeat to verify.

"If the coolant level does not rise during the test, look elsewhere for the problem. This information was shared with me by a radiator shop proprietor in Arizona several years ago."

I'm having difficulty visualizing why and how this test could work, because with the cap off you're not changing pressure or altering communication of the system with outside air. Maybe I'm overlooking something. Try it out.

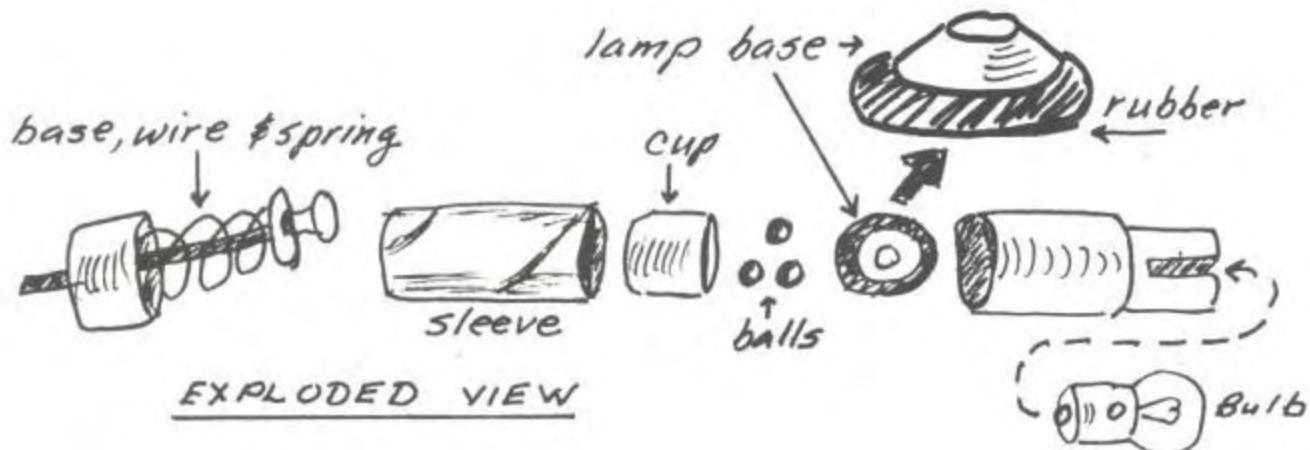
GLOVE BOX LIGHT SWITCH REPAIR

By Harry Logan (#651)

About a year ago I repaired my glove box light switch based on an article by Don Huff (#261) that appeared in a very early Dave Lewis-era '37-'38 newsletter. I thought another article on light switch repair would be useful. If you have to fumble around trying to locate items in your glove box at night, you either have a burned-out #51 light bulb or the glove box switch isn't working. The switch is simple to fix...here's how.

The light holder/switch slides right out of the clock with a little pressure on the bulb. The little cylinder in which the bulb is held can be pulled out of the base. Inside you will find an insulating cardboard sleeve, the lamp contact base and a metal cup. Inside the cup are three small steel balls. When the glove box door is closed, the balls lie in the bottom of the cup. When the door is opened, the balls fall into contact with the lamp base, closing the circuit and lighting the bulb.

Switch failure is usually caused by corrosion of the balls, metal cup and contact. I rubbed the balls with fine emery paper to remove the tarnish. I also cleaned the inside and bottom of the cup, the lamp contact and the termination of the wire that contacts the base of the cup. After more than a year, my glove box light is still working perfectly.



FEL-PRO GASKET NUMBERS

Series 40 (248) Engine:

Head set	HS 7549 B-3
Full set	FS 7549 B-2
Intake manifold	MS 8910
Exhaust manifold	MS 2498 B
Valve cover	VS 4035 A
Push rod cover	PS 4018 A
Oil pan	OS 4038 D
Rear main	BS 3987
Exhaust pipe flange	8938 (2 req.)
Timing chain cover ('38 only), water outlet, and water pump	in full set only.

Series 60, 80, 90 (320) Engine:

Head set	HS 7612 B
Full set	FS 7612 B
Intake manifold	MS 8912
Exhaust manifold	MS 8480 B
Oil pan	OS 4025 C
Rear main	BS 3987
Valve cover	VS 4027 A
Push rod cover, timing chain cover ('38 only), water outlet, and water pump	in full set only.

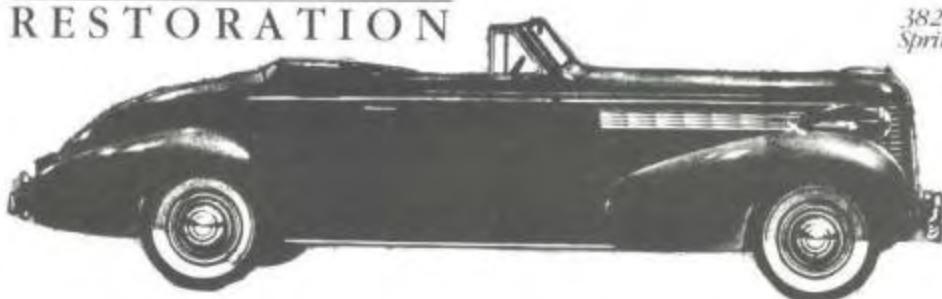
STANDARD "BLUE STREAK" IGNITION PARTS

Here are some Standard Ignition Products ("Blue Streak") parts that can be used in '37 and '38 Buicks. These should be available from any good auto parts store that handles Standard products.

Points	DR-2236XP
Condenser	DR-60X
Distributor Cap	DR-196
Rotor	DR-142
Generator Brushes	RX-46
Generator Bushing	X-4242
Starter Bushings	X 4265 (40) X 4378 (60, 80, 90)
Dimmer Switch	DS-40
Stoplight Switch	SLS-24
Coil	UC-14

The coil is a compromise substitute for UC-350 and UC-500R which are no longer listed, but it should work OK. Thanks to Norman Feil (#271) and to "Bo" Berry, the counterman at Bob's Auto Service in Columbus.

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'38 steering column & gear box--\$50; '38 complete front sub-frame (coil springs, sway bar, spindles & brake drums)--\$100. All from '38 business coupe model 46. Call DON HESS (#864), 303/330-4033, or write 4741 Pawnee Drive, Greeley, CO 80634.

16 hydraulic lifters, push rods & rocker assembly, 60/80/90 series--\$150; 8 connecting rods that take insert bearings, from a '52 large engine--\$100; '38 large engine--\$500 or offer. Call DAVID BYLSMA (#117) in Maryland, 301/551-7236 between 5:30 & 9:30 PM, EST mon.-Fri., any-time on weekends.



CARS FOR SALE



1937 Mc Laughlin-Buick Limited Limousine (very little difference from U.S. model). Needs total restoration but is 90% complete. Comes with good Roadmaster sedan parts car. BOB WARD (#114). 407 Morrison Ave., Beaverton, Ontario, Canada L0K 1A0. 705/426-7292.

1938 Special convertible, model 46-C. Dark metallic gray, new red leather interior & new tan top. Body-off restoration of a solid 77K-mile car. Rebuilt engine; new ring gear, motor mounts, clutch disc, fuel pump. Rebuilt carburetor. New cloth-covered wiring harness. Complete new exhaust system including heat riser housing & butterfly. New large capacity radiator core. Complete new front suspension. Completely rebuilt brakes. Body exterior was sandblasted & primed with epoxy primer & finished in acrylic lacquer. All new glass, Lynn Steele rubber, running boards by Hundley Acuff. All chrome NOS or re-done. Interior completely re-done with dash woodgrain by Bennie Estes. Original '38 jack. Bumper badge, grille guard, spot light, Guide Super-Ray driving lights, clock, owner's manual, shop manual. Have radio, heater & defroster but not installed; also Century 3.9 ring & pinion not installed. Custom cotton car cover. See TORQUE TUBE, Vol. VIII, No. 9. Show or go. \$34,000 OBO. Partial trades considered. LOU WILDT (#245). 2210 Trappers Knoll, Batavia, Ohio 45103. 513/732-2609.

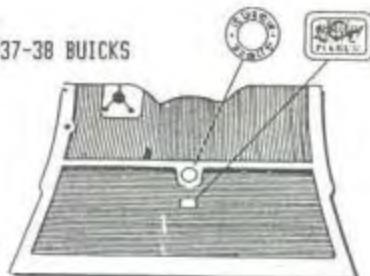
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2136 24th Ave. So.
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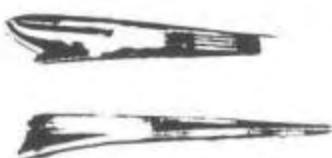
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8 *Buick*

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